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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,465	01/13/2004	Soo-Young Kim	8947-000069/US	9923
30593	7590	07/27/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			LE, THONG QUOC	
P.O. BOX 8910			ART UNIT	
RESTON, VA 20195			PAPER NUMBER	

2827

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/755,465	Applicant(s) KIM, SOO-YOUNG	
	Examiner Thong Q. Le	Art Unit 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-38 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-41 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 7, 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (U.S. Patent No. 5,461,591).

Regarding claims 1-3, 7 Kim et al. disclose a semiconductor memory device (Figure 6), comprising:

an oscillator circuit (Figure 6) for generating an oscillation signal that varies based on a mode of operation;

a word line enable circuit (Column 3, lines 64-67, Column 5, lines 15-21) for generating a word line enable signal in response to the oscillation signal; and

a control circuit (Column 4, lines 59-67, Column 5, lines 1-14) for controlling the oscillator circuit and the word line enable circuit so that a pulse (ABSTRACT) width of the word line enable signal is widened as operation mode of the memory device changes from an active mode to a stand-by mode (Column 2, lines 48-53). More specifically, Kim et al. disclose wherein a period of the oscillation signal is maintained as operation mode changes due to the widening of the pulse width (Column 2, lines 10-35), and wherein the control circuit controls the oscillator circuit so that the period of the oscillation signal is lengthened after a given time elapses from the beginning of the stand-by mode (Column 2, lines 15-28).

Regarding claims 39-41, the apparatus discussed above would perform the method claims 39-41.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-5,7 are rejected under 35 U.S.C. 102(e) as being anticipated by Takita et al. (U.S. Patent No. 6,628,564).

Regarding claims 1-5,7, Takita et al. disclose a semiconductor memory device (Figure 5), comprising:

an oscillator circuit (210) for generating an oscillation signal that varies based on a mode of operation (Column 1, lines 65-67, Column 2, lines 1-8, Column 5, lines 48-63);

a word line enable circuit for generating a word line enable signal in response to the oscillation signal (Column 30, lines 51-67, Column 31, lines 1-10); and

a control circuit (Column 31, lines 1-38-58) for controlling the oscillator circuit and the word line enable circuit so that a pulse width of the word line enable signal is widened as operation mode of the memory device changes from an active mode to a stand-by mode, and wherein a period of the oscillation signal is maintained as operation mode changes due to the widening of the pulse width, and wherein the control circuit controls the oscillator circuit so that the period of the oscillation signal is lengthened after a given time elapses from the beginning of the stand-by mode (Figure 2, Column 1, lines 39-67, column 2, lines 1-36), and the device including an array of memory cells arranged in row and columns, wherein all of the memory cells are refreshed for a given time to restore data therein (Column 7, lines 3-8), and the period of the oscillation signal is equal to a refresh period (Column 6, lines 43-57), and

Allowable Subject Matter

7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Kim et al. (U.S. Patent No. 5,461,191), Takita et al. (U.S. Patent No. 6,628,564), and others, does not teach the claimed invention having a control circuit controls the refresh period and the pulse width of word line enable signal in response to a chip select signal.

8. Claims 8-38 are allowed.

Claims 8-38 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Kim et al. (U.S. Patent No. 5,461,191), Takita et al. (U.S. Patent No. 6,628,564), and others, does not teach the claimed invention having a method and an apparatus of a semiconductor memory device having a flag signal generator for generating a flag indicating an end of a first refresh section of a stand-by mode of operation, after a given time elapses from a start of the stand-by mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai V. Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Le
Primary Examiner
Art Unit 2827

**THONG LEI
PRIMARY EXAMINER**